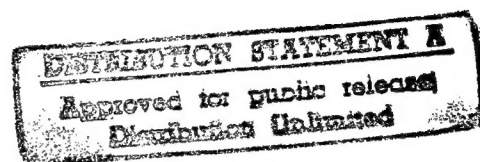


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27 MARCH 1992



**FOREIGN
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JPRS Report



Science & Technology

Japan

21ST MITI UPDATE SURVEY ON FOREIGN
OPERATIONS BY JAPANESE CORPORATIONS

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SCIENCE & TECHNOLOGY
JAPAN

21ST MITI UPDATE SURVEY ON FOREIGN
OPERATIONS BY JAPANESE CORPORATIONS

92FE0284 Tokyo MITI PUBLICATIONS in Japanese Dec 91 pp 1-27

[For earlier related report, see JPRS-JST-92-004, 24 Feb 92—"Status of Japanese-Affiliated Manufacturing Operations in Europe"]

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21st MITI Update Survey on Foreign Operations by Japanese Corporations

92FE0284A Tokyo MITI PUBLICATION in Japanese Dec 91 pp 1-27

[Report by Industrial Policy Bureau, International Planning Department, MITI, dated 12 Mar 91]

[Text] I. Outline of "21st MITI Survey on Foreign-Affiliate Operations of Japanese Corporations"

(1) Intention of Survey

This survey has been conducted every year since 1970 with the intention of detailing and providing a continuous picture of the globalization process of Japanese corporations.

(2) Subject

The survey targeted Japanese corporations ("corporations" are listed below) which had Japanese affiliate companies overseas as of 31 March 1991 (exempted were financial institutions, insurance companies, and real estate firms). In this survey, a Japanese subsidiary is designed as a foreign corporation in which investment by the Japanese parent company exceeds 10 percent; a sub-subsidiary is designated as a foreign corporation in which Japanese foreign subsidiary investment in it exceeds 50 percent, and in which investment into that subsidiary itself by the Japanese parent company exceeds 50 percent. Japanese subsidiaries and Japanese sub-subsidiaries will henceforth be called by the general term "Japanese affiliate."

(3) Effective Time of Survey

31 March 1991 or the nearest settlement of accounts date.

(4) Yen Conversion

A 1990 interim average rate of ¥141.55 to the dollar was used as the aggregate currency conversion for Japanese affiliate firms.

(5) Respondents

Parent corporations targeted: 3,529
 Parent corporations that responded: 1,776
 Collection rate (parent corporation base): 50.3 percent

Japanese affiliates targeted: 10,210
 Japanese affiliates that responded: 7,986
 Collection rate (Japanese affiliate base): 78.2 percent

Note: The number of targeted Japanese-affiliate firms designates the number which were contacted at their international business departments.

II. Parent Corporations

(1) Composition in Survey

Of the 3,529 targeted corporations, we obtained responses from 1,776 corporations. Of the 1,776 corporations which responded, 23 companies withdrew and another 137 companies were included from outside the targeted corporations. When these were removed, we were left with an effective corporation response number of 1,616 companies (reference made below to effective corporation response number base).

Table 1. Parent Corporations by Industrial Sector and Size

(Unit: companies)

	Large		Medium		Total	
		Percent		Percent		Percent
Agriculture, forest, fisheries	8	61.5%	5	38.5%	13	100.0%
Mining	22	100.0%	0	0.0%	22	100.0%
Construction	53	86.9%	8	13.1%	61	100.0%
Manufacturing	770	76.5%	236	23.5%	1,006	100.0%
Foodstuffs	35	70.0%	15	30.0%	50	100.0%
Textiles	29	58.0%	21	42.0%	50	100.0%
Wood, paper and pulp	19	70.4%	8	29.6%	27	100.0%
Chemicals	109	90.1%	12	9.9%	121	100.0%
Iron and steel	24	85.7%	4	14.3%	28	100.0%
Nonferrous metals	28	84.8%	5	15.2%	33	100.0%
General machinery	94	82.5%	20	17.5%	114	100.0%
Electrical machinery	170	79.4%	44	20.6%	214	100.0%
Transport equipment	92	89.3%	11	10.7%	103	100.0%
Precision machinery	30	61.2%	19	38.8%	49	100.0%
Petroleum and coal	12	100.0%	0	0.0%	12	100.0%
Miscellaneous	128	62.4%	77	37.6%	205	100.0%
Commercial	272	80.5%	66	19.5%	338	100.0%
Service sector	79	91.9%	7	8.1%	86	100.0%
Miscellaneous	69	76.7%	21	23.3%	90	100.0%
Total	1,273	78.8%	343	21.2%	1,616	100.0%

A breakdown by industrial sector shows that 1,006 companies (comprising 62.3 percent of the survey) came from the manufacturing sector and 338 companies (20.9 percent) came from the commercial sector.

With regard to scale of the corporations, there were 1,273 large-size corporations (composition: 78.8 percent), and 343 medium-size corporations (composition: 21.2 percent).

Table 2. Principal Line Items of Parent Company

	All industries		Manufacturing sector	
	(¥billion)	Company average (¥million)	(¥billion)	Company average (¥million)
Capital	18,572	11,493	13,444	13,364
Sales	364,494	225,553	154,233	153,313
Purchases	277,468	171,700	91,943	91,394
Ordinary profit	11,017	6,817	8,142	8,093
After-tax profit	5,482	3,392	4,288	4,262
Production output	*****	*****	101,657	116,047
Authorized/reported total	13,824	8,554	9,136	9,081
Loans and investment	12,805	7,924	8,548	8,497

(2) Capital

In the survey, the total amount of capital in all parent companies for all industrial sectors was ¥18.6 trillion, and for the manufacturing sector, it was ¥13.4 trillion (same below according to Japanese affiliate statistics). This accounted for 32.8 percent of the total amount of capital in all domestic corporations for all industrial sectors, and 56.1 percent of all domestic capital for the manufacturing sector.

(3) Sales

The total amount of sales for all the parent corporations in the survey in all industrial sectors was ¥364.5 trillion, and in the manufacturing sector, it was ¥154.2 trillion. This accounted for 25.5 percent of the total amount of sales for all domestic companies in all industrial sectors, and 37.7 percent of all domestic sales for the manufacturing sector.

(4) Trade

1) Exports and Imports

Exports accounted for 14.4 percent of all business for parent corporations in all industrial sectors and 21.3 percent in the manufacturing sector. Imports, on the other hand, accounted for 11.7 percent in all industrial sectors, and 11.0 percent in the manufacturing sector, we find the highest percentage of exports in precision machinery (46.9 percent), transportation equipment (33.6 percent), and electrical machinery (28.3 percent). We find the highest percentage of imports in petroleum and coal (45.5 percent), in wood, paper, and pulp (20.1 percent), and foodstuffs (19.6 percent).

Table 3. Parent Company Exports

(Unit: ¥1 million)

	Exports			Exports to Japanese affiliates		
		Average per company	Export percent		Average per company	Export percent
Agriculture, forest, fisheries	54,926	4,993	4.1%	4,817	438	8.8%
Mining	11,237	624	1.4%	2,482	138	22.1%
Construction	763,957	13,172	3.7%	9,321	161	1.2%
Manufacturing	32,868,057	33,066	21.3%	14,162,373	14,277	43.1%
Foodstuffs	74,812	1,527	0.8%	7,766	158	10.4%
Textiles	346,664	6,933	9.4%	36,603	732	10.6%
Wood, paper and pulp	147,665	5,679	5.1%	7,453	287	5.0%
Chemicals	1,565,929	13,049	10.5%	351,419	2,953	22.4%
Iron and steel	1,771,514	85,612	17.9%	32,583	1,207	1.8%
Nonferrous metals	893,278	21,008	13.9%	76,411	2,315	11.0%
General machinery	2,089,109	18,488	25.4%	723,211	6,400	34.6%
Electrical machinery	10,397,776	48,816	28.3%	5,096,580	24,040	49.0%
Transport equipment	12,235,583	121,144	33.6%	5,865,990	58,079	47.9%
Precision machinery	1,760,875	35,936	46.9%	1,206,021	24,613	68.5%
Petroleum and coal	186,293	16,936	1.8%	55,789	5,072	29.9%
Miscellaneous	1,598,559	7,914	12.3%	702,547	3,478	43.9%
Commercial	18,595,335	56,179	11.6%	1,893,058	5,737	10.2%
Service sector	18,154	263	0.3%	3,674	53	20.2%
Miscellaneous	128,263	1,733	0.6%	9,761	132	7.6%
Total	52,439,929	33,723	14.4%	16,085,486	10,364	30.7%

When we view this in terms of amounts, we find that the commercial sector accounts for ¥18.6 trillion in exports, transportation equipment accounts for ¥12.2 trillion, and electrical machinery accounts for ¥10.4 trillion. These three industrial sectors account for a combined total of 78.6 percent of all exports (¥52.4 trillion). With regard to imports, we find that the commercial sector alone accounts for ¥21.7 trillion, or 67 percent of the total amount of all exports (¥32.4 trillion).

2) Trade With Japanese Affiliates

When we look at exports to Japanese affiliates from the parent corporation, we find the percentage of exports to be 30.7 percent for all industrial sectors, and 43.1 percent for the manufacturing sector. Within the manufacturing sector, we have indicated those industrial sectors which have the highest percentage of exports from the parent corporation to the Japanese affiliate. These include precision machinery (68.5 percent), electrical machinery (49 percent), and transportation equipment (47.9 percent).

Meanwhile, in terms of parent company imports, when we look at imports from the Japanese affiliates to the parent corporations, we find the percentage of imports to be 10.5 percent for all sectors, and 20.4 percent for the manufacturing sector. Within the manufacturing sector, we find the percentage of imports for electrical machinery (31.2 percent), general machinery (30 percent), and petroleum and coal (27 percent).

Table 4. Parent Company Imports

(Unit: ¥1 million)

	Imports			Imports from Japanese affiliates		
		Average per company	Import (percent)		Average per company	Import (percent)
Agriculture, forest, fisheries	260,833	23,712	24.5%	48,836	4,440	18.7%
Mining	52,491	2,916	10.1%	10,554	586	20.1%
Construction	237,868	4,101	1.4%	8,190	107	2.6%
Manufacturing	10,091,950	10,173	11.0%	2,063,476	2,082	20.4%
Foodstuffs	487,647	9,952	19.6%	45,514	929	9.3%
Textiles	156,960	3,139	9.2%	36,306	726	23.1%
Wood, paper and pulp	388,119	14,928	20.1%	72,610	2,793	18.7%
Chemicals	620,206	5,168	9.3%	42,637	358	6.9%
Iron and steel	759,692	28,137	14.3%	6,009	223	0.8%
Nonferrous metals	451,855	13,687	13.0%	33,446	1,014	7.4%
General machinery	101,868	901	2.1%	30,575	271	30.0%
Electrical machinery	1,690,529	8,012	6.8%	526,729	2,496	31.2%
Transport equipment	972,826	9,632	4.0%	155,893	1,543	16.0%
Precision machinery	167,528	3,419	8.4%	38,708	790	23.1%
Petroleum and coal	3,663,660	333,060	45.5%	990,171	90,016	27.0%
Miscellaneous	631,260	3,125	9.6%	84,878	420	13.4%
Commercial	21,692,250	65,535	14.4%	1,268,572	3,844	5.8%
Service sector	14,251	207	0.4%	8,992	130	63.1%
Miscellaneous	20,248	274	0.2%	4,473	60	22.1%
Total	32,369,891	20,843	11.7%	3,411,093	2,199	10.5%

(5) Ordinary Profit

The total amount of ordinary profit in all parent corporations for all industrial sectors was ¥11 trillion, and in the manufacturing sector, it was ¥8.1 trillion. When compared to the previous year, the average ordinary profit for each corporation decreased by 2.6 percent for all industrial sectors. In terms of the manufacturing sector, ordinary profits showed a 1.7 percent decrease, slightly off from the previous year. Ordinary profit as a ratio of net sales for all industrial sectors remained at 3 percent from the previous year. In the manufacturing sector, ordinary profit as a ratio of net sales went from 5.6 percent to 5.3 percent, while earnings in the parent corporations maintained the same levels as the previous year.

(6) Foreign Investments

The total amount of loans and investments to Japanese affiliates was ¥12.8 trillion for all industrial sectors, and ¥8.5 trillion for the manufacturing sector. When compared to the previous year, loans and investment showed a 29.4 percent increase for all industrial sectors and a 43.8 percent increase for the manufacturing sector indicating a continuing activity of brisk business in direct overseas investment. The average amount of loans and investments per each corporation increased by 9 percent in all industrial sectors and 21 percent in the manufacturing sector which expands the scale of investment per each corporation.

Moreover, a breakdown of loans and investment to Japanese subsidiaries shows investment in capital at ¥10.8 trillion or 84.7 percent, and loans at ¥2 trillion or 15.3 percent.

III. Overseas Affiliates

(1) Distribution

1) Distribution by Industrial Sector and Region

When we take a look at the 7,986 Japanese affiliates (refer below to the respondent base of this survey) who responded to this survey, we find Asia had 2,928 affiliates (comprising 36.7 percent), North America 2,287 (28.6 percent), and Europe with 1,673 (20.9 percent). These three regions account for 86.3 percent of the total which points to the fact that these three regions continue to be important strongholds for Japanese corporations entering the overseas markets.

Table 5. Distribution of Japanese Affiliates by Industrial Sector and Region
(Unit: companies)

	North America	Central, S. America	Asia	Mideast	Europe	Oceania	Africa	Region total
Agriculture, forest, fisheries	16	25	29	0	8	16	4	98
Mining	42	7	5	5	4	30	3	96
Construction	50	16	137	9	26	6	2	246
Manufacturing	811	212	1,755	13	506	86	25	3,408
Foodstuffs	46	9	67	0	11	15	3	151
Textiles	15	29	137	0	11	3	1	196
Wood, paper and pulp	25	9	23	0	4	6	0	67
Chemicals	89	22	238	2	65	7	1	424
Iron and steel	43	10	69	3	3	2	5	135
Nonferrous metals	34	6	54	0	10	3	1	108
General machinery	94	23	142	2	81	10	1	353
Electrical machinery	200	49	442	4	174	10	5	884
Transport equipment	119	24	187	1	56	14	6	407
Precision machinery	31	7	70	0	14	3	0	125
Petroleum and coal	4	2	7	0	2	1	0	16
Miscellaneous	111	22	319	1	75	12	2	542
Commercial	750	148	629	21	764	146	11	2,469
Service sector	176	36	151	2	86	37	7	495
Miscellaneous	442	102	222	1	279	61	67	1,174
Total	2,287	546	2,928	51	1,673	382	119	7,986

When we take a look at the manufacturing sector by region, we find among the total 3,408 affiliates that Asia has 1,755 affiliates (comprising 51.5 percent), North America has 811 affiliates (23.8 percent), and Europe has 506 affiliates (14.8 percent). Thus, more than half of the manufacturing sector total is in Asia and about one-fourth is in North America.

Next, when we look by industrial sector, we find that the manufacturing sector comprises 3,408 Japanese affiliates (42.7 percent), the commercial sector comprises 2,469 (30.9 percent), and the service sector comprises 495 (6.2 percent). When we do a breakdown by industry, we find electrical machinery accounting for 884 Japanese affiliates (25.9 percent), and following that, we find chemicals accounting for 424 affiliates (12.4 percent), transportation equipment accounting for 407 affiliates (11.9 percent), and general machinery accounting for 353 affiliates (10.4 percent).

2) Foreign Market Penetration by Time Period (Manufacturing sector)

Of the 3,408 affiliates in the manufacturing sector, we find that market entry for 1,088 companies (31.9 percent) took place after 1988. Since 1985, 1,775 or 52.1 percent of the Japanese affiliates have opened overseas, thus more than half of foreign market penetration in the manufacturing sector has taken place since 1985.

When we view this by region, we find that more than one-third of overseas penetration into the manufacturing sector markets of North America, Asia, and Europe was achieved after 1988, while Oceania had achieved more than one-fourth.

Table 6. Foreign Market Entry by Time Period (Manufacturing sector)
(Unit: companies; lower row: composition percentage)

	Prior to 1978	1979- 1981	1982- 1984	1985- 1987	1988- 1990	Total
North America	161 19.9%	62 7.6%	83 10.2%	227 28.0%	278 34.3%	811 100.0%
Central/ South America	131 61.8%	21 9.9%	19 9.0%	17 8.0%	24 11.3%	212 100.0%
Asia	596 34.0%	113 6.4%	120 6.8%	340 19.4%	586 33.4%	1,755 100.0%
Mideast	7 53.8%	4 30.8%	0 0.0%	1 7.7%	1 7.7%	13 100.0%
Europe	117 23.1%	50 9.9%	76 15.0%	88 17.4%	175 34.6%	506 100.0%
Oceania	38 44.2%	6 7.0%	6 7.0%	13 15.1%	23 26.7%	86 100.0%
Africa	13 52.0%	4 16.0%	6 24.0%	1 4.0%	1 4.0%	25 100.0%
All regions	1,063 31.2%	260 7.6%	310 9.1%	687 20.2%	1,088 31.9%	3,408 100.0%
Advanced countries	316 22.5%	118 8.4%	165 11.8%	328 23.4%	476 33.9%	1,403 100.0%
Developing countries	747 37.3%	142 7.1%	145 7.2%	359 17.9%	612 30.5%	2,005 100.0%

The number of Japanese affiliates achieving market entry into North America after 1988 in the manufacturing sector was 278. Among these, we find electrical machinery with 67 affiliates, transportation equipment with 38 affiliates, and general machinery with 32 affiliates.

The number of Japanese affiliates achieving market penetration in Asia after 1988 in the manufacturing sector was 586, and when we do a breakdown of these by industry, we find electrical machinery with 144, chemicals with 72, and textiles with 55 affiliates. Regionally, we find 332 Japanese affiliates entered ASEAN area markets and nearly twice that amount—164 Japanese affiliates—entered NIES area mar-

kets. Thus, in these past few years alone, we can see that market entry into the ASEAN area has been quite busy.

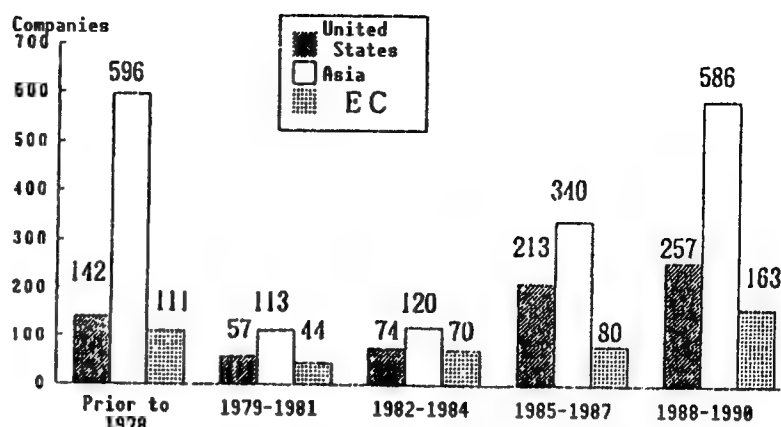


Figure 1. Foreign Market Entry of Japanese Affiliates Into United States, Asia, and EC by Time Period (Manufacturing sector)

Table 7. Levels of Japanese Investment (Manufacturing sector)

(Unit: companies; lower row: composition percentage)

	Less than 25%	25-50%	50%	50-75%	75-100%	100%	Total
North America	37 4.6%	43 5.3%	33 4.1%	52 6.4%	78 9.4%	670 70.3%	811 100.0%
Central/ South America	8 3.8%	40 18.9%	11 5.2%	19 9.0%	47 22.2%	87 41.0%	212 100.0%
Asia	93 5.3%	539 30.7%	134 7.6%	235 13.4%	218 12.4%	536 30.5%	1,765 100.0%
Mideast	1 7.7%	5 38.5%	3 23.1%	2 15.4%	0 0.0%	2 15.4%	13 100.0%
Europe	18 3.6%	49 9.7%	26 4.9%	24 4.7%	67 11.3%	333 65.8%	506 100.0%
Oceania	4 4.7%	14 16.3%	5 5.8%	3 3.5%	12 14.0%	48 55.8%	86 100.0%
Africa	6 24.0%	12 48.0%	2 8.0%	1 4.0%	1 4.0%	3 12.0%	26 100.0%
All regions	167 4.9%	702 20.6%	213 6.3%	336 9.9%	411 12.1%	1,579 46.3%	3,408 100.0%
Advanced countries	59 4.2%	106 7.6%	63 4.5%	79 5.6%	145 10.3%	951 67.8%	1,403 100.0%
Developing countries	108 5.4%	596 29.7%	150 7.5%	257 12.8%	266 13.3%	628 31.3%	2,006 100.0%

3) Distribution of Japanese Investments (Manufacturing sector)

When we look at the level of Japanese investment in Japanese affiliate corporations, we find that the percentage of 100-percent Japanese-owned subsidiaries in advanced countries is 67.8 percent, and in developing countries, we find the percentage to be 31.3 percent for a total of 46.3 percent of all Japanese affiliates.

The percentage of corporations in which there is a majority Japanese investment exceeding 50 percent in advanced countries is 83.7 percent, and in developing countries, we find the percentage to be 57.4 percent for a total of 68.3 percent. Thus, for every three Japanese affiliates, we find two which are majority-owned Japanese companies.

4) Japanese Affiliate Corporations and Sub-Subsidiaries in Which Japanese Investment Exceeds 50 Percent

When compared to the previous year, the number of sub-subsidiary corporations increased by 32.2 percent to 1,157 companies. Thus, the percentage of sub-subsidiary corporations among all Japanese affiliates went from 13.8 to 14.5 percent.

Table 8. Japanese Foreign Affiliates and Sub-Subsidiaries With Japanese Investment Exceeding 50 Percent
(Units: companies; ¥1 million; percent; people)

		Japanese affiliate			Japanese affiliate 50% + Japanese-owned	
			Sub-subsidiary	Percent		Percent
Corporations	All sectors	7,986	1,157	14.5	8,190	77.5
	Manufacturing sector	3,408	392	11.5	2,326	68.3
Capital	All sectors	10,229,701	1,705,353	16.7	8,115,544	79.3
	Manufacturing sector	5,351,139	937,299	17.5	3,774,421	70.5
Sales	All sectors	99,806,407	7,998,528	8.0	85,607,584	85.8
	Manufacturing sector	26,194,083	4,782,478	18.3	19,154,955	73.1
Purchases	All sectors	73,880,197	4,730,721	6.4	64,560,955	87.4
	Manufacturing sector	14,961,843	2,886,833	19.3	11,858,492	77.9
Ordinary profit	All sectors	949,817	36,604	3.9	568,528	59.9
	Manufacturing sector	480,326	11,007	2.3	230,603	48.0
After-tax profit	All sectors	352,886	-23,235	-6.6	151,290	42.9
	Manufacturing sector	181,158	-17,113	-9.4	56,790	31.3
Ordinary profit per- cent of sales	All sectors	1.0	0.5	50.0	0.7	70.0
	Manufacturing sector	1.8	0.2	11.1	1.2	66.7
Retained earnings	All sectors	2,819,821	320,949	11.4	2,089,159	74.1
	Manufacturing sector	1,564,613	192,855	12.3	1,042,809	66.6
Employees	All sectors	1,549,669	209,694	13.5	1,068,382	68.9
	Manufacturing sector	1,242,001	167,026	13.4	839,959	67.6

* Composition percentage signifies a percentage that is measured against all Japanese affiliates.

When compared to the previous year, we find among Japanese sub-subsidiary affiliates that capital decreased from 18 to 16.7 percent, that sales decreased slightly from 9 to 8 percent, and that the number of employees increased from 12.6 to 13.5 percent, which in real numbers showed an increase from 146,000 to 210,000.

In addition, those Japanese affiliates with Japanese investment exceeding 50 percent increased by 24.4 percent over the previous year to 6,190 companies, but in terms of the percentage that these companies comprise of all Japanese affiliates. This percentage remained virtually unchanged going from 78.2 to

77.5 percent. In real terms, capital and sales remained mostly unchanged in those affiliates with slight increases of 1.4 and 1.3 percent, respectively. As a percentage that these affiliates comprise among all Japanese affiliates, we can say that in terms of capital, it went from 83 to 79.3 percent, and in terms of sales, it decreased from 90.7 to 85.8 percent. The number of employees reached 1,068,000, breaking through the 1 million mark from 774,000. In terms of a percentage that these comprise among Japanese affiliates, it showed an increase from 66.9 percent to 68.9 percent.

(2) Sales

1) 1990 Sales

The total amount of sales in 1990 for Japanese affiliate corporations grew favorably to ¥99.8 trillion (7.1 percent increase over the previous year) with a yen base, or \$705.1 billion (19.6 percent increase) with a dollar base. Furthermore, when we look at the manufacturing sector, we find that it grew significantly to ¥26.2 trillion (17.6 percent increase) with a yen base, or \$185.1 billion (31.4 percent increase) with a dollar base. The largest growth took place in Asia and Europe. When compared to the previous year, Asia showed 14.4 percent growth for all industrial sectors and Europe showed 21.9 percent growth, while in the manufacturing sector, Asia showed 41.1 percent and Europe showed 57.9 percent growth. When compared to total sales by U.S. foreign affiliates, Japanese foreign affiliate companies were able to achieve 55.7 percent of this total were it all industries and 28.9 percent were it for the manufacturing sector (1989 sales according to Department of Commerce statistics were \$1,266,300,000,000 for all industries as a whole and \$641,200,000,000 for the manufacturing sector).

Next, when we look at the breakdown of sales by region, we find that for all industries North America accounts for ¥42.6 trillion or 42.7 percent, Europe accounts for ¥32.9 trillion or 33 percent, and Asia accounts for ¥16.4 trillion or 16.4 percent. Compared to the previous year, Europe shows an increase of 4 points and Asia shows an increase of 1.1 points, contrasted with North America, which shows a decrease of 4.7 points. The increase in Europe is notable. In the manufacturing sector, sales in North America were ¥12.1 trillion or 46.1 percent of the total, while in Asia, sales were ¥7.2 trillion or 27.4 percent, and in Europe, they were ¥4.9 trillion or 18.7 percent. When we take a look at the commercial sector, we find North America with sales of ¥29.1 trillion or 42.1 percent of the total (¥69.1 trillion) which when compared to the previous year shows a decrease of 4.4 points. Conversely, Europe achieved sales of ¥27.1 trillion or 39.1 percent in the commercial sector (3.5 point increase over the previous year). This has almost put it on the same level as North America.

When we look at a breakdown by industry, we find the manufacturing sector accounting for 26.2 percent and the nonmanufacturing sectors accounting for 73.8 percent. Within manufacturing, we find electrical machinery accounting for 30.4 percent of total manufacturing sales, and transportation Europe accounting for 26.6 percent, which continues to make these the two main industries followed by general machinery with 12.1 percent and chemicals with 6.9 percent.

Table 9. Japanese Affiliate Sales by Industry and Region

(Unit: ¥1 million)

	North America	Central, S. Am.	Asia	Mideast	Europe
Agriculture, forest, fisheries	57,648	10,295	13,224	0	9,627
Mining	33,121	16,549	28,998	12,009	4,722
Construction	279,241	5,058	231,111	642	63,772
Manufacturing	12,077,790	820,410	7,187,551	70,929	4,909,754
Foodstuffs	286,620	10,537	145,525	0	15,719
Textiles	39,743	40,691	577,392	0	35,845
Wood, paper and pulp	292,984	32,288	10,703	0	484
Chemicals	798,163	68,174	584,089	38,552	318,887
Iron and steel	567,834	25,525	221,075	28,718	17,678
Nonferrous metals	155,276	23,986	329,903	0	19,249
General machinery	1,585,792	44,619	348,544	481	1,146,351
Electrical machinery	3,332,964	218,811	2,436,416	2,462	1,880,375
Transport equipment	3,279,079	327,710	1,767,050	0	984,601
Precision machinery	95,619	12,767	265,072	0	47,632
Petroleum and coal	7,071	5,182	9,028	0	0
Miscellaneous	1,638,645	12,120	492,776	716	442,935
Commercial	29,118,232	1,563,641	7,870,415	653,153	27,055,565
Service sector	291,936	32,398	283,855	6,051	113,792
Miscellaneous	786,730	58,293	783,816	0	791,778
Total	42,644,698	2,504,644	16,398,770	742,784	32,949,008

	Oceania	Africa	Total
Agriculture, forest, fisheries	12,455	6,871	110,120
Mining	198,401	33,004	324,804
Construction	4,531	484	584,839
Manufacturing	1,052,573	75,676	26,194,683
Foodstuffs	34,569	3,766	496,736
Textiles	11,912	5,731	711,314
Wood, paper and pulp	21,433	0	357,892
Chemicals	14,407	433	1,918,685
Iron and steel	151,838	42,986	1,055,652
Nonferrous metals	17,621	423	546,458
General machinery	53,233	114	3,179,134
Electrical machinery	82,667	3,751	7,957,446
Transport equipment	603,292	16,796	6,978,528
Precision machinery	3,264	0	424,354
Petroleum and coal	2,526	0	23,805
Miscellaneous	55,811	1,676	2,644,679
Commercial	2,876,631	11,298	69,148,935
Service sector	132,251	1,169	861,452
Miscellaneous	125,155	38,004	2,581,574
Total	4,399,997	166,506	99,806,407

2) 1991 Sales

Sales for 1991 are expected to increase by 12.9 percent for the entire manufacturing sector when compared to 1990. When we take a look by region, gains of 20 percent or more are expected in Central and South America, Asia, and Africa, and bullish growth is expected for all other regions with the exception of Oceania which is expected to remain at a low rate of growth. When we view this by industrial sector, we find that high growth of 40.4 percent is expected in petroleum and coal, 21.8 percent in foodstuffs, and 20.9 percent in textiles, while all other industrial sectors are expected to improve by about 15 percent.

3) Overseas Productivity

a. 1990 Overseas Productivity

The total amount of sales for Japanese affiliate corporations in the manufacturing sector in 1990 showed a 17.6 percent growth over the previous year to ¥26.2 trillion.

Taking total domestic corporate sales (per company statistics) in the manufacturing sector as a denominator, we find a 5.1 percent growth in sales over the previous year to ¥408.6 trillion. When we calculate overseas production in 1990 based on this method, we find that this grew by 6.4 percent (0.7 points better than the previous year). We are told that this is a new record and that overseas production activities are expanding quite well.

When we take a look at overseas production by industrial sector, we find that three industries had exceeded 10 percent growth—transportation with 12.6 percent, electrical machinery with 11.4 percent, and general machinery with 10.6 percent. Other industries which indicated high levels of growth were iron

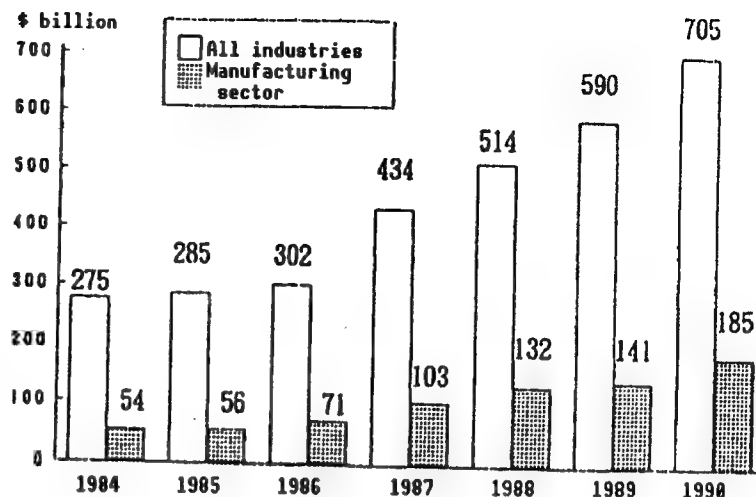


Figure 2. Changes in Sales of Japanese Affiliates (dollar base)

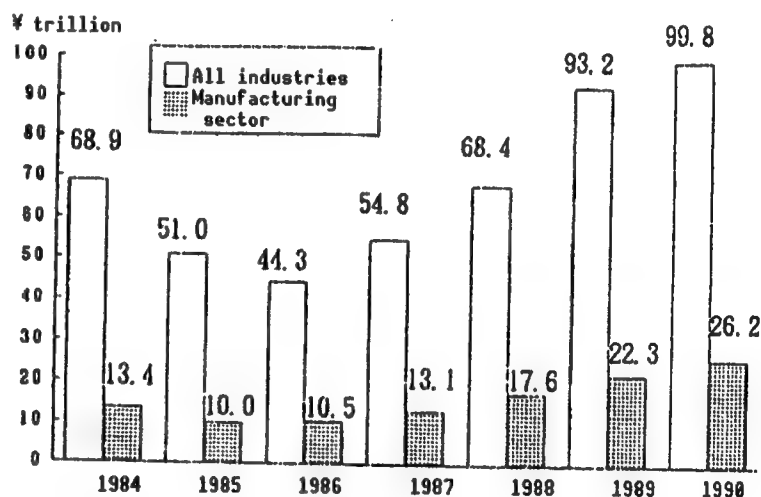


Figure 3. Changes in Sales of Japanese Affiliates (yen base)

Table 10. Expected 1991 Sales Growth as Compared to 1990

(Unit: percent)

	North America	Central, S. America	Asia	Mideast	Europe	Oceania	Africa	Region total
Manufacturing	8.6	27.6	20.4	13.1	12.0	0.9	26.6	12.9
Foodstuffs	15.4	11.6	38.7	0.0	23.5	18.7	113.2	21.8
Textiles	33.4	54.2	16.5	0.0	8.7	3.5	2.5	20.9
Wood, paper and pulp	19.4	Δ5.5	8.8	0.0	3507.7	7.6	0.0	16.0
Chemicals	8.3	109.4	8.2	Δ4.7	25.7	26.9	10.9	14.8
Iron and steel	Δ4.2	228.2	21.7	37.0	35.2	Δ2.2	0.9	3.3
Nonferrous metals	18.1	Δ32.4	17.5	0.0	26.1	15.4	0.0	15.8
General machinery	0.4	12.3	18.1	72.0	9.7	12.6	0.0	5.7
Electrical machinery	8.1	25.8	23.4	22.1	9.3	Δ18.0	5.1	13.3
Transport equipment	14.3	8.0	19.2	0.0	12.9	1.5	44.9	14.5
Precision machinery	1.1	22.7	21.2	0.0	12.0	14.1	0.0	15.1
Petroleum and coal	55.3	0.0	119.0	0.0	0.0	Δ5.6	0.0	40.4
Miscellaneous	14.1	66.4	22.1	0.0	14.3	Δ1.2	14.9	15.6

and steel (5.6 percent), nonferrous metals (5.2 percent), and chemicals (5.1 percent).

Moreover, when we calculate overseas production (percentage of Japanese affiliate sales against the sales of the parent companies responding to this survey) by limiting it to those corporations which penetrated foreign markets, we find production to have grown nearly 17 percent over the previous year.

When we view this by industrial sector, we find that the level of general machinery being turned out overseas is nearly 40 percent that of domestic production, while electrical equipment, textiles, and transportation equipment also showed high overseas levels of productivity being about 20 percent of domestic production.

b. 1991 Overseas Productivity

In terms of overseas productivity for 1991, we come up with a 6.9 percent increase when we do these calculations based on a 12.9 percent increase (calculations based on a 1991 sales forecast by this survey) in 1991 Japanese manufacturing affiliate sales, and a 5.5 percent increase (GNP growth rate

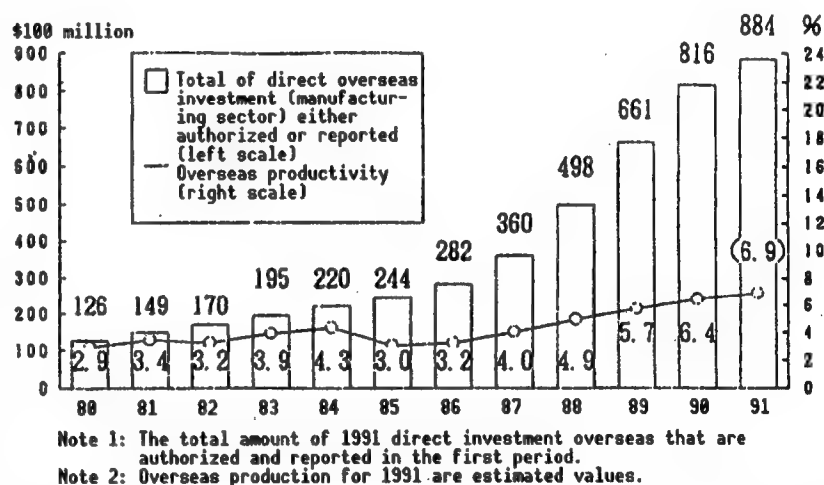


Figure 4. Overseas Productivity and Total Amount of Direct Investments Authorized or Reported in Japanese Manufacturing Affiliates

Table 11. Changes in Overseas Productivity by Industrial Sector

(Unit: percent)

	1984	1985	1986	1987	1988	1989	1990
Manufacturing	4.3	3.0	3.2	4.0	4.9	5.7	6.4
Foodstuffs	1.0	0.9	0.4	0.8	1.2	1.3	1.2
Textiles	4.7	2.7	3.4	3.1	4.2	1.3	3.1
Wood, paper and pulp	1.6	1.2	0.8	1.3	1.8	1.9	2.1
Chemicals	2.0	2.0	2.7	3.2	3.9	3.8	5.1
Iron and steel	8.1	5.3	5.4	5.9	6.6	5.3	5.6
Nonferrous metals	4.9	2.7	1.5	2.6	4.0	6.4	5.2
General machinery	2.6	3.4	3.7	4.0	4.5	3.8	10.6
Electrical machinery	11.8	7.4	8.1	9.4	10.6	11.0	11.4
Transport machinery	6.4	5.6	4.8	9.3	9.4	14.3	12.6
Precision machinery	2.9	3.4	6.0	2.8	13.9	5.4	4.7
Petroleum and coal	0.1	0.0	0.8	0.7	0.2	0.1	0.2
Others	1.5	0.8	1.3	1.2	1.4	3.1	3.1

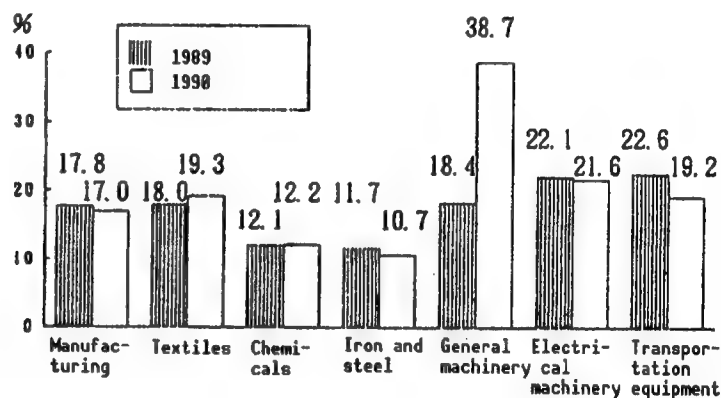


Figure 5. Overseas Productivity in Japanese Affiliate Industrial Sectors

Table 12. Changes in U.S. and Japan Overseas Productivity

(Unit: percent)

	1982	83	84	85	86	87	88	89	90	Est 91
Japan (FY)	3.2	3.9	4.3	3.0	3.2	4.0	4.9	5.7	6.4	6.9
U.S. (CY)	21.1	18.8	18.1	18.1	21.0	23.1	24.9	23.8	-	-

Note: Overseas productivity = Japanese affiliate sales manufacturing sector) divided by domestic sales (manufacturing sector)

Sources: For Japan: Survey of Foreign Business Activities and Trends; Basic Survey of Foreign Business Activities; statistics from overseas affiliates. For the United States: Survey of Current Business, Quarterly Financial Report

forecast [nominal terms]) when we compare it against the domestic manufacturing sector. It therefore appears that 1991 will revise the 1990 levels again.

4) Sales Distribution Makeup (Manufacturing sector)

When we view sales distribution by origin for all regions, we find that local sales account for 81.4 percent and exports account for 18.6 percent. Another look at exports shows that exports to Japan account for 5.8 percent and exports to other regions account for 12.7 percent. When compared to the previous year, we find that local sales decreased 2.6 points and exports to Japan decreased 2.1 points while exports to other areas increased 4.6 points.

Table 13. Changes in Sales Distribution Makeup for Japanese Manufacturing Affiliates (All regions)

(Unit: percent)

	1986	1987	1988	1989	1990
Local sales	81.1	79.3	81.7	84.0	81.4
Exports	18.9	20.7	18.3	16.0	18.6
To Japan	7.8	9.1	7.1	7.9	5.8
To other areas	11.1	11.7	11.2	8.1	12.7

Table 14. Changes in Sales Distribution Makeup for Japanese Manufacturing Affiliates (North America)

(Unit: percent)

	1986	1987	1988	1989	1990
Local sales	92.8	92.8	93.8	93.1	90.1
Exports	7.2	7.2	6.2	6.9	9.9
To Japan	3.3	4.8	4.0	4.5	3.3
To other areas	3.9	2.5	2.2	2.5	6.6

Table 15. Changes in Sales Distribution Makeup for Japanese Manufacturing Affiliates (Asia)

(Unit: percent)

	1986	1987	1988	1989	1990
Local sales	54.7	59.0	59.8	63.9	59.6
Exports	45.3	41.0	40.2	36.1	40.4
To Japan	15.8	16.7	13.7	15.8	11.8
To North America	10.2	8.0	8.7	6.0	7.6
To Asia	12.8	11.1	11.4	9.7	12.6
To Europe	4.6	3.5	4.5	3.3	6.1
To other areas	1.9	1.7	1.9	1.3	2.3

Table 16. Changes in Sales Distribution Makeup for Japanese Manufacturing Affiliates (Europe)

(Unit: percent)

	1986	1987	1988	1989	1990
Local sales	95.9	94.4	95.6	96.1	96.1
Exports	4.1	5.6	4.4	3.9	3.9
To Japan	1.2	1.5	1.7	1.7	1.2
To other areas	2.9	4.0	2.7	2.2	2.7

Taken by region, local sales in North America and Europe account for 90.1 percent and 96.1 percent of total sales, respectively. This indicates that the proportion of local sales for both regions continues to advance to high levels by exceeding 90 percent, but when compared to the previous year, local sales in North America alone have decreased somewhat while exports to other regions have shown an increase.

The sales distribution makeup for Asia indicates that local sales account for 59.6 percent of total sales and exports account for 40.4 percent, which for the region indicates a decline in local sales of 4.3 points. A breakdown of exports finds, on the one hand, that exports to Japan have decreased by 4.0 points, while exports to other regions have increased across the board. Exports to other parts of Asia show an increase of 2.9 points and exports to Europe show an increase of 2.8 points.

When we look at sales distribution by origin in the manufacturing sector by industry, we find the highest percentage of exports are found in petroleum and coal (100 percent), wood, paper, and pulp (71.2 percent), precision machinery (64.8 percent), and electrical equipment (64.4 percent). Conversely, local sales show high percentages in transportation equipment (87.4 percent), general machinery (81.9 percent), and iron and steel (80 percent). Moreover, when we look at exports to Japan (reverse imports) against total sales, we find the highest percentage in oil and petroleum (100 percent), wood, paper and pulp (48.1 percent), and precision machinery (35.1 percent).

Table 17. Sales Distribution Makeup in Japanese Manufacturing Affiliates (Asia)

(Unit: percent)

	Local sales areas	Total exports	Exports Japan	Exports N. America	Exports Asia	Exports Europe	Exports Other
Manufacturing	59.8	40.4	11.8	7.6	12.6	6.1	2.3
Foodstuffs	73.0	27.0	16.9	2.6	3.9	1.2	2.3
Textiles	68.6	31.4	10.1	2.3	11.8	3.4	3.7
Wood, paper and pulp	28.8	71.2	48.1	4.7	0.0	18.3	0.0
Chemicals	63.4	36.6	4.3	0.4	30.7	0.5	0.7
Iron and steel	80.0	20.0	10.0	3.3	5.6	0.0	1.1
Nonferrous metals	73.4	26.6	10.3	1.2	14.6	0.1	0.5
General machinery	81.9	18.1	11.5	0.5	2.4	3.5	0.2
Electrical machinery	35.6	64.4	16.9	14.4	18.1	11.6	3.4
Transport machinery	87.4	12.6	1.8	5.1	2.3	2.7	0.7
Precision machinery	35.2	64.8	35.1	3.8	10.4	8.5	7.0
Petroleum and coal	0.0	100.0	100.0	0.0	0.0	0.0	0.0
Others	70.1	29.9	12.3	6.0	6.7	3.9	2.0

5) Japanese Affiliate Exports¹ to Japan (Manufacturing sector)

In 1990, Japanese affiliate exports to Japan (reverse imports) in the manufacturing sector are estimated to be ¥1,527 billion (\$10.79 billion), which when compared to the previous year, shows a decrease of 13.6 percent (dollar base 3.6 percent). This accounts for 4.5 percent of all Japanese imports and 9 percent of all finished products imports.

When we view this by region, we find that reverse imports from Asia account for ¥848 billion (\$5.99 billion), such imports from North America account for ¥401.2 billion (\$2.83 billion), and those from Europe account for ¥60.4 billion (\$430 million).

As for the industrial sector, we find electrical equipment at ¥560.3 billion, wood, paper, and pulp at ¥133.6 billion, and chemicals at ¥131.4 billion.

In terms of reverse imports from Asia, we find electrical equipment accounting for ¥411.4 billion, precision machinery with ¥93 billion, textiles with ¥58.4 billion, and general machinery accounting for ¥40 billion. Imports from North America are: wood, paper, and pulp, ¥89.6 billion; electrical machinery, ¥83.9 billion; and chemicals, ¥81.5 billion.

¹: This is arrived at by multiplying sales times the percentage of exports to Japan (effective respondent base)

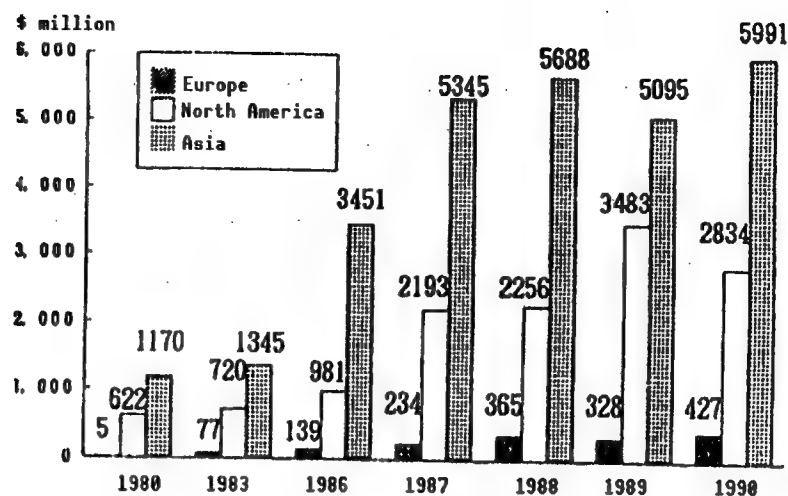


Figure 6. Changes in Japanese Affiliate Exports to Japan (Manufacturing)

(3) Purchases

1) Purchases by Means of Procurement (Manufacturing sector)

When we look at the purchase of supplies by Japanese affiliates (manufacturing sector) according to their means of procurement, we find that 47.9 percent are obtained locally, 44.8 percent are imported from Japan, and 7.3 percent are imported from other areas, which indicate a major change when compared to the previous year.

When we look at the purchase of supplies by region, we find that local procurement decreased somewhat in North America to 42.8 percent which was a 4.3 point decrease when compared to the previous year. In Europe, however, we find that local procurement increased 2.3 points over the previous year to 55.3 percent. In Asia, meanwhile, the distribution in means of procurement remained virtually unchanged from the year before.

Table 18. Changes in Procurement Distribution Means for Japanese Manufacturing Affiliates (All regions)

(Unit: percent)

	1986	1987	1988	1989	1990
Local procurement	40.1	48.5	41.8	48.1	47.9
Imports	59.9	51.5	58.2	51.9	52.1
From Japan	53.0	44.5	52.9	45.7	44.8
From other areas	6.9	7.0	5.3	6.2	7.3

Table 19. Changes in Procurement Distribution Means for Japanese Manufacturing Affiliates (North America)

(Unit: percent)

	1986	1987	1988	1989	1990
Local procurement	32.3	44.3	36.9	47.1	42.8
Imports	67.7	55.7	63.1	52.9	57.2
From Japan	62.3	52.9	60.8	49.2	52.6
From other areas	5.4	2.8	2.3	3.7	4.6

Table 20. Changes in Procurement Distribution Means for Japanese Manufacturing Affiliates (Asia)

(Unit: percent)

	1986	1987	1988	1989	1990
Local procurement	42.2	53.7	47.2	49.8	48.5
Imports	57.8	46.3	52.8	50.2	51.5
From Japan	45.3	33.6	41.3	38.9	38.8
From other areas	12.6	12.6	11.4	11.4	12.7

Table 21. Changes in Procurement Distribution Means for Japanese Manufacturing Affiliates (Europe)

(Unit: percent)

	1986	1987	1988	1989	1990
Local procurement	46.1	46.4	44.7	53.0	55.3
Imports	53.9	53.6	55.3	47.0	44.7
From Japan	51.2	49.4	51.6	41.9	40.7
From other areas	2.7	4.2	3.6	5.1	4.0

2) Local Procurement (Value-added base)

Local procurement (value-added base) Japanese manufacturing affiliates for FY90 was 70.6 percent (previous year—70.8 percent).

When viewed regionally, we find that natural resources, raw materials, and processed or refined industries such as oil and coal, wood, paper, and pulp, and foodstuffs comprise more than 90 percent. In processing and fabrication industries, we find high levels of local procurement for general machinery 77.7 percent, and for precision machinery (71.8 percent). viewed regionally, Central and South America are first at 82.4 percent while Oceania, Europe, and North America all exceed 70 percent.

When we view the scale of local procurement by companies, we find that the proportion of companies in which local procurement exceeds 60 percent is 70.3 percent. Moreover, the percentage of companies in which local procurement exceeds 80 percent is 52 percent, which means that more than half of the Japanese affiliates have reached a high local procurement level of 80 percent. When we take a look at processing and fabrication companies, we find those which exceed 60 percent local procurement account for 62.9 percent, and those which exceed 80 percent account for 42.4 percent.

Table 22. Local Procurement in Industrial Sector and Region

(Unit: percent)

	North America	Central, S. America	Asia	Mideast	Europe	Oceania	Africa	Region total
Manufacturing	71.4	82.4	87.9	0.0	73.0	73.4	52.7	70.6
Foodstuffs	100.0	94.2	90.2	0.0	0.0	0.0	90.6	96.6
Textiles	96.4	0.0	83.5	0.0	0.0	0.0	0.0	68.8
Wood, paper and pulp	0.0	0.0	0.0	0.0	0.0	100.0	0.0	99.3
Chemicals	87.9	0.0	80.1	0.0	82.4	100.0	0.0	83.6
Iron and steel	90.2	0.0	52.9	0.0	0.0	0.0	0.0	72.2
Nonferrous metals	90.7	0.0	76.6	0.0	87.2	0.0	0.0	79.1
General machinery	81.7	92.5	76.6	0.0	71.4	92.9	0.0	77.7
Electrical machinery	58.3	74.6	64.7	0.0	60.3	0.0	0.0	63.0
Transport machinery	63.2	81.4	63.8	0.0	85.5	68.9	0.0	65.7
Precision machinery	79.1	0.0	59.9	0.0	98.7	78.4	0.0	71.8
Petroleum and coal	100.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
Others	93.3	88.3	77.3	0.0	89.6	96.3	70.3	86.9

Table 23. Local Procurement Range According to Industrial Sector (All regions)
(Unit: percent)

	0-20%	20-40%	40-60%	60-80%	80-100%
Manufacturing	3.8%	10.0%	15.9%	18.3%	52.0%
Foodstuffs	0.0%	1.4%	5.4%	6.8%	86.5%
Textiles	4.4%	12.2%	13.3%	20.0%	60.0%
Wood, paper and pulp	0.0%	3.7%	3.7%	7.4%	85.2%
Chemicals	4.8%	4.8%	13.0%	15.1%	62.3%
Iron and steel	13.5%	10.8%	8.1%	13.5%	54.1%
Nonferrous metals	2.4%	9.6%	11.9%	4.8%	71.4%
General machinery	3.0%	9.7%	15.7%	17.2%	54.5%
Electrical machinery	4.4%	16.1%	22.1%	20.1%	37.2%
Transport machinery	5.9%	8.3%	18.5%	24.9%	42.4%
Precision machinery	2.2%	11.1%	22.2%	13.3%	51.1%
Petroleum and coal	0.0%	0.0%	0.0%	0.0%	100.0%
Others	1.7%	8.0%	12.5%	20.4%	57.4%

Table 24. Local Procurement Range According to Industrial Sector
(North America) (Unit: percent)

	0-20%	20-40%	40-60%	60-80%	80-100%
Manufacturing	1.9%	5.4%	11.1%	15.6%	65.9%
Foodstuffs	0.0%	0.0%	0.0%	0.0%	100.0%
Textiles	0.0%	0.0%	25.0%	0.0%	75.0%
Wood, paper and pulp	0.0%	0.0%	0.0%	10.0%	90.0%
Chemicals	3.8%	3.8%	3.8%	15.4%	73.1%
Iron and steel	6.3%	0.0%	0.0%	12.5%	81.3%
Nonferrous metals	0.0%	0.0%	0.0%	0.0%	100.0%
General machinery	0.0%	11.1%	13.9%	11.1%	63.9%
Electrical machinery	3.1%	10.8%	13.8%	18.5%	53.8%
Transport machinery	3.0%	3.0%	22.4%	26.9%	44.8%
Precision machinery	0.0%	11.1%	11.1%	0.0%	77.8%
Petroleum and coal	0.0%	0.0%	0.0%	0.0%	100.0%
Others	0.0%	3.8%	5.8%	15.4%	75.0%

Table 25. Local Procurement Range According to Industrial Sector (Asia)
(Unit: percent)

	0-20%	20-40%	40-60%	60-80%	80-100%
Manufacturing	4.7%	12.1%	18.3%	19.0%	46.0%
Foodstuffs	0.0%	2.7%	8.1%	13.5%	75.7%
Textiles	5.6%	15.5%	12.7%	25.4%	40.8%
Wood, paper and pulp	0.0%	10.0%	10.0%	10.0%	70.0%
Chemicals	5.9%	4.9%	17.6%	13.7%	57.8%
Iron and steel	11.8%	17.6%	17.6%	17.6%	35.3%
Nonferrous metals	3.8%	15.4%	15.4%	7.7%	57.7%
General machinery	4.5%	12.1%	15.2%	18.2%	50.0%
Electrical machinery	4.8%	15.7%	24.9%	19.2%	35.4%
Transport machinery	9.7%	14.6%	20.4%	19.4%	35.9%
Precision machinery	3.6%	14.3%	32.1%	14.3%	35.7%
Petroleum and coal	0.0%	0.0%	0.0%	0.0%	100.0%
Others	1.7%	9.4%	13.3%	23.3%	52.2%

Table 26. Local Procurement Range According to Industrial Sector (Europe)
(Unit: percent)

	0-20%	20-40%	40-60%	60-80%	80-100%
Manufacturing	4.0%	12.6%	17.2%	19.2%	47.0%
Foodstuffs	0.0%	0.0%	0.0%	0.0%	100.0%
Textiles	—	—	—	—	—
Wood, paper and pulp	—	—	—	—	—
Chemicals	0.0%	16.7%	0.0%	16.7%	66.7%
Iron and steel	100.0%	0.0%	0.0%	0.0%	0.0%
Nonferrous metals	0.0%	0.0%	20.0%	0.0%	80.0%
General machinery	0.0%	0.0%	35.3%	29.4%	35.3%
Electrical machinery	5.1%	27.1%	22.0%	22.0%	23.7%
Transport machinery	0.0%	0.0%	6.7%	26.7%	66.7%
Precision machinery	0.0%	0.0%	0.0%	16.7%	83.3%
Petroleum and coal	—	—	—	—	—
Others	5.4%	5.4%	13.5%	13.5%	62.2%

(4) Earnings

(1) Ordinary Profit

The sum total of ordinary profit for Japanese affiliates in 1990 was ¥949.6 billion (5.1 percent increase over previous year) as a yen base, and \$6.7 billion (17.3 percent increase) as a dollar base. We are thus able to see somewhat of a recovery over the poor earnings of the previous year.

Table 27. Ordinary Profit in Japanese Affiliates by Industry and Region
(Unit: ¥1 million)

	North America	Central, S. America	Asia	Mideast	Europe	Oceania	Africa	Region total
Agriculture, Forestry, and Fisheries	-1,558	-1,123	248	0	459	-342	172	-2,142
Mining	4,257	3,918	12,401	14	-847	34,293	-1,736	52,300
Construction	-3,913	432	10,297	27	4,862	791	10	12,506
Manufacturing sector	-110,695	30,525	382,415	17,384	154,732	22,213	3,752	480,326
Foodstuffs	-11,824	2,064	3,281	0	-732	376	-523	-7,378
Textiles	-9,886	5,675	40,066	0	3,591	-65	-1,158	38,223
Wood, paper and pulp	7,160	4,547	-558	0	-89	1,053	0	12,115
Chemicals	-11,434	-2,539	44,197	12,665	30,318	475	-53	73,629
Iron and steel	-306	-2,850	8,264	4,756	277	2,165	2,881	15,167
Nonferrous metals	-5,557	-8	9,684	0	1,322	-1,416	50	4,075
General machinery	10,961	1,684	20,297	-36	40,596	2,832	1	76,315
Electrical machinery	-34,911	5,360	76,323	-8	37,311	98	375	84,548
Transportation machin.	-42,417	14,222	122,804	0	27,352	15,714	1,988	139,661
Precision machinery	-3,650	152	8,102	0	-677	30	0	1,957
Oil and coal	255	1,143	1,032	0	0	189	0	2,619
Miscellaneous	-9,086	1,095	30,941	7	15,463	764	213	39,397
Commercial sector	87,746	9,540	89,684	686	188,273	20,399	-165	394,162
Service sector	8,630	2,684	10,704	-157	-1,013	-4,334	261	16,755
Miscellaneous	-37,030	6,424	9,440	0	13,300	2,309	1,267	-4,290
Total	-52,561	52,380	495,189	17,953	357,766	75,329	3,561	949,817

When we view this by region, we find a large increase in ordinary profit in Asia with ¥495.2 billion, in Europe with ¥357.8 billion, while in Africa, we see that great improvement in ordinary profits which went from a minus to a plus. In North America, particularly, we find that ordinary profits worsened

from ¥220.2 billion in the previous year to a minus ¥52.6 billion.

When we take a look at the average ordinary profit per corporation, we find that for all industrial sectors, ordinary profit per company decreased from ¥1.42 million to ¥1.19 million, while in the manufacturing sector, ordinary profit per company decreased from ¥1.55 million to ¥1.41 million. Within the manufacturing sector, we find that

ordinary profit per company showed large increases in textiles which went from ¥1.07 million to ¥1.95 million, and in transportation equipment which went from ¥1.74 million to ¥3.43 million. Somewhat similar to wood, paper, and pulp, however, which decreased from ¥7.61 million to ¥1.81 million, we find wide variations among the various industries. Regionally, ordinary profits rose in Asia, Europe, and Africa, but came down in the other areas.

The percentage of companies in which ordinary profits have been reported is 52.7 percent for all industries and 52 percent for the manufacturing sector. When we compare this to the previous year (all industries: 55 percent; manufacturing sector: 53.1 percent), we find this figure has declined. When we view these percentages by region, we find that, in terms of all industries, Asia (58.3 percent) and Central and South

America (56 percent) are high whereas the Mideast (41.2 percent) and North America (43.6 percent) are low.

In the manufacturing sector, we find that Africa (60 percent) and Central and South America (59.9 percent) are high whereas North America (38.6 percent) and the Mideast (46.2 percent) are low.

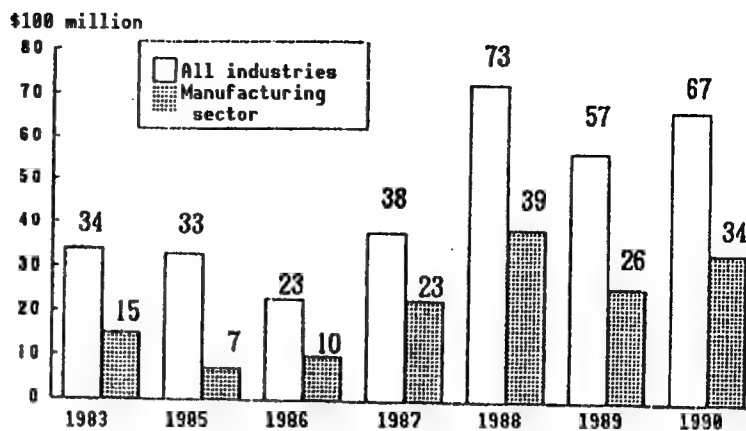


Figure 7. Ordinary Profit of Japanese Affiliate Corporations (dollar base)

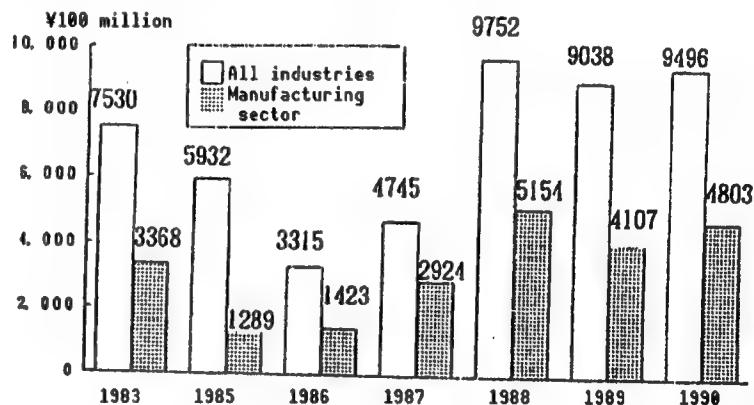


Figure 8. Ordinary Profit of Japanese Affiliate Corporations (yen base)

Table 28. Regional Distribution of Ordinary Profit Ranges in Japanese Affiliate Corporations (All industrial sectors)

(Unit: percent)

	Profit Loss 1B+	Loss 100M- 1B	Loss 1M- 100M	Loss 0- 1M	Profit 0- 1M	Profit 1M- 100M	Profit 100M- 1B	Profit 1B+	Ordinary profit Approp percent
North America	4.8	15.6	14.1	22.4	9.9	18.5	11.5	3.7	43.6
Central/S. America	0.9	7.3	8.6	27.1	13.6	21.1	18.1	3.3	58.0
Asia	0.4	5.2	11.7	24.3	8.9	24.7	20.4	4.4	58.3
Mideast	0.0	3.9	11.8	43.1	5.9	21.6	7.8	5.9	41.2
Europe	1.6	7.6	10.8	24.2	9.9	20.9	19.3	5.8	55.9
Oceania	2.1	11.0	13.6	24.1	10.5	18.3	13.6	8.8	49.2
Africa	1.7	11.8	9.2	33.6	14.3	17.6	9.2	2.5	43.7
All regions	1.9	9.2	12.0	24.2	9.9	21.4	16.9	4.5	52.7

Table 29. Regional Distribution of Ordinary Profit Ranges in Japanese Affiliate Corporations (Manufacturing sector)

(Unit: percent)

	Profit Loss 1B+	Loss 100M- 1B	Loss 1M- 100M	Loss 0- 1M	Profit 0- 1M	Profit 1M- 100M	Profit 100M- 1B	Profit 1B+	Ordinary profit Approp percent
North America	8.0	23.4	14.4	15.5	5.2	14.2	13.8	5.4	38.6
Central/S. America	1.9	8.0	5.7	24.5	8.0	20.8	25.9	5.2	59.9
Asia	0.4	6.4	12.8	24.4	5.5	21.7	23.4	5.4	58.0
Mideast	0.0	7.7	7.7	38.5	7.7	7.7	7.7	23.1	46.2
Europe	3.0	11.9	9.1	20.4	6.9	18.6	23.1	7.1	55.7
Oceania	2.3	8.1	12.8	20.9	7.0	22.1	15.1	11.8	55.8
Africa	4.0	8.0	8.0	20.0	8.0	24.0	20.0	8.0	60.0
All regions	2.8	11.4	12.1	21.7	5.9	19.3	21.0	5.9	52.0

2) Ratio of Ordinary Profit to Net Sales

The ratio of ordinary profit to net sales was 1 percent for all industrial sectors and 1.8 percent for the manufacturing sector. They each showed no change when compared to the previous year.

When we look at the ratio of ordinary profit to net sales in North America, Asia, and Europe for all industries, we found that while this ratio declined in North America from 0.5 to 0.1 percent, it rose in Asia from 2 to 3 percent and also rose in Europe from 0.8 percent to 1 percent. In the manufacturing sector as well, we found that while this ratio declined in North America from 0.2 to -0.9 percent, it rose in Asia from 3.8 to 5 percent and also rose in Europe from 2.3 percent to 3.2 percent. This downturn of earnings in North America is notable.

When we compare this ratio to domestic Japanese corporations (1990—2.7 percent for all industries; 4.3 percent for manufacturing) and to the parent

companies taken up in this survey (1990—3 percent for all industries; 5.3 percent for manufacturing), we find that the ratio of ordinary profit to net sales in Japanese affiliates continues to remain at low levels, and we are told that this continues to account for most of the difficulties in overseas business. Earnings are especially poor in the period following entry into a market. When we view the ratio of ordinary profit to net sales in Japanese manufacturing affiliates in a three-year time interval following market entry, we find that, in terms of all regions, corporations which entered the market during the period from 1988 to 1990 showed a negative profit ratio. For

example, in Asia, we find that companies which entered the market prior to 1987 show a profit ratio of more than 5 percent while those who entered after 1988 show an extremely low figure of -0.7 percent.

3) Distribution of Net Profit

Retained earnings for Japanese affiliates as of March 1991 were ¥2,819,800 million (\$19.92 billion). This is equal to 2.2 percent of the retained earnings in all domestic corporations. A regional breakdown of retained earnings shows Asia with ¥916.5 billion, North America with ¥852 billion, and Europe with ¥686.3 billion.

The ratio of earnings to dividends distributed from after-tax profits in Japanese affiliates equals 20.9 percent (manufacturing sector: 21.1 percent).

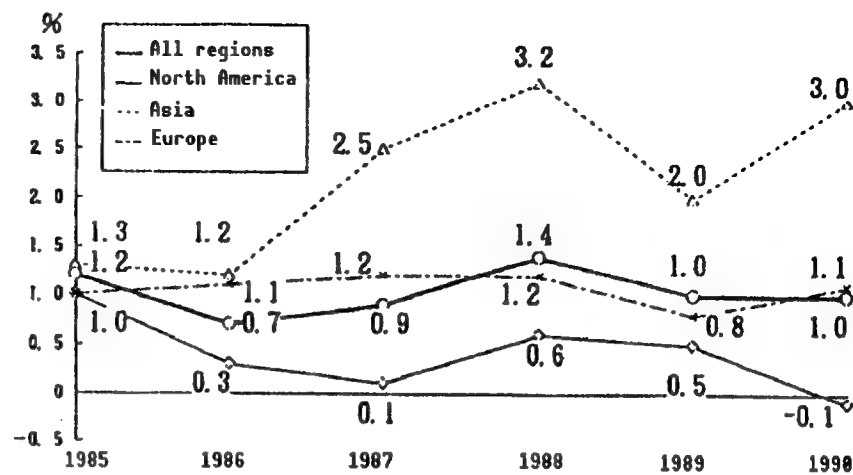


Figure 9. Ratio of Ordinary Profit to Net Sales (All industries)

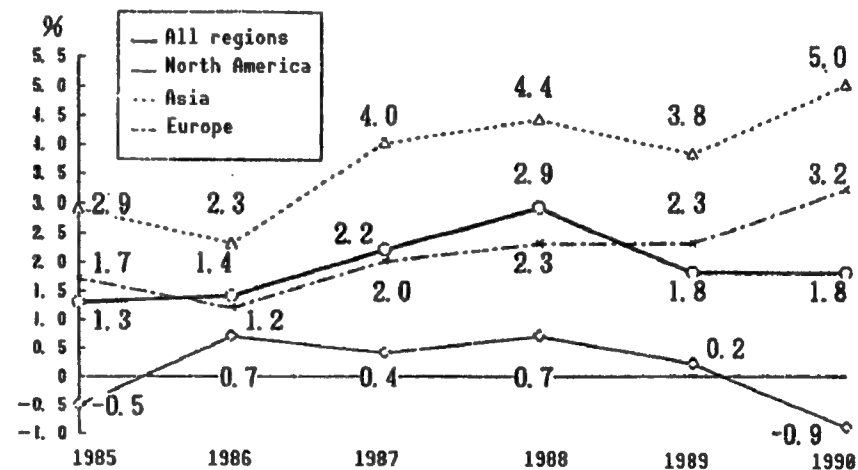


Figure 10. Ratio of Ordinary Profit to Net Sales (Manufacturing sector)

Retained earnings equal 78.9 percent (manufacturing sector: 78.6 percent). Dividend distribution in Japanese affiliates is relatively low when compared to domestic corporations (all industries: 24.1 percent; manufacturing: 23.8 percent). Incidentally, dividend distribution (after-tax profits distributed by the corporation) in foreign companies which have entered the Japanese market are 41.2 percent for all industries (manufacturing: 35.5 percent). We are told that the ratio of retained earnings in Japanese affiliate corporations is high.

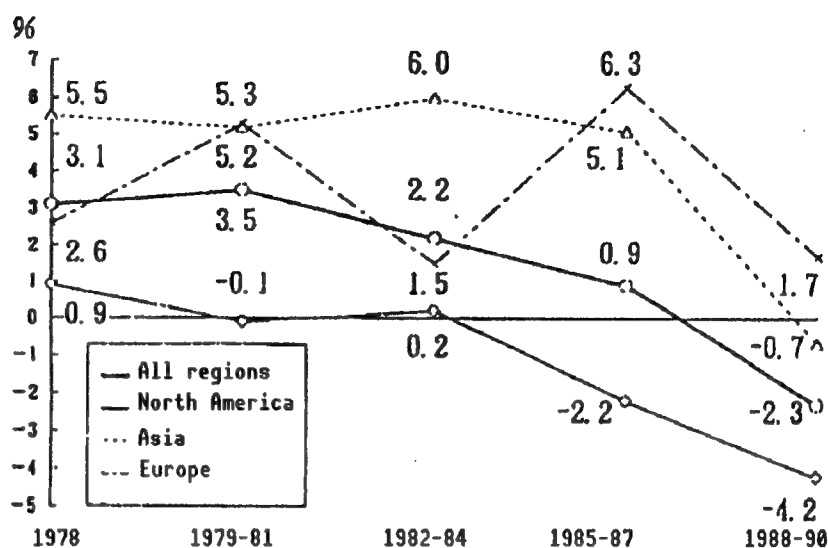


Figure 11. Ratio of Ordinary Profit to Net Sales by Market Penetration Time Periods

The distribution rate is 2.3 percent for all industries and 2.5 percent for the manufacturing sector. Compared to the distribution rate for all domestic corporations (7.6 percent for all industries and 8.7 percent for the manufacturing sector), it remains at a low level.

The distribution rate is 2.3 percent for all industries and 2.5 percent for the manufacturing sector. Compared to the distribution rate for all domestic corporations (7.6 percent for all industries and 8.7 percent for the manufacturing sector), it remains at a low level.

Table 30. Distribution of Net Profit in Japanese Affiliates

(Unit: ¥1 million)

		After-tax profit	Director's bonus	Dividends	Retained earnings	Balance of retained earnings
North America	All industries	-215,393	57	41,407	-256,857	852,018
	Manufacturing sector	-169,850	3	15,881	-185,734	455,941
Central/S. America	All industries	9,142	119	9,846	-623	165,247
	Manufacturing sector	-8,303	93	5,021	-13,417	88,119
Asia	All industries	326,583	1,953	107,534	217,096	918,515
	Manufacturing sector	239,158	1,656	77,376	160,126	658,762
Mideast	All industries	17,687	0	6,142	11,545	24,302
	Manufacturing sector	17,381	0	5,825	11,556	22,098
Europe	All industries	174,550	179	46,879	127,492	686,300
	Manufacturing sector	85,953	131	25,327	60,495	282,898
Oceania	All industries	35,784	46	18,105	17,633	152,313
	Manufacturing sector	13,718	5	3,941	9,770	52,812
Africa	All industries	4,533	50	5,082	-599	23,128
	Manufacturing sector	3,103	50	1,988	1,065	5,985
All regions	All industries	352,886	2,404	234,795	115,687	2,819,821
	Manufacturing sector	181,158	1,938	135,359	43,861	1,564,613

[Continuation of Table 30]

		Dividend rate	Dividend distribution	After-tax profits more than 0	
				Dividend dist.	Retained earn.
North America	All industries	0.8%	-19.2%	15.4%	84.6%
	Manufacturing sector	0.6%	-9.4%	12.1%	87.9%
Central/S. America	All industries	3.7%	105.5%	18.0%	81.9%
	Manufacturing sector	3.0%	-60.5%	18.8%	80.8%
Asia	All industries	5.7%	32.9%	26.1%	73.5%
	Manufacturing sector	5.3%	32.4%	26.7%	73.7%
Mideast	All industries	7.5%	34.7%	31.8%	68.2%
	Manufacturing sector	7.8%	33.5%	32.9%	67.1%
Europe	All industries	2.4%	26.9%	15.8%	84.1%
	Manufacturing sector	2.8%	29.5%	17.5%	82.4%
Oceania	All industries	2.8%	50.6%	28.8%	73.2%
	Manufacturing sector	1.7%	28.7%	22.0%	78.0%
Africa	All industries	13.5%	112.1%	55.7%	43.8%
	Manufacturing sector	11.2%	64.1%	41.2%	57.8%
All regions	All industries	2.3%	66.5%	20.9%	78.9%
	Manufacturing sector	2.5%	74.7%	21.1%	78.6%

(5) Investment in Plant and Equipment

Japanese affiliate investment in plant and equipment for all industrial sectors in 1990 was ¥2,695,100 million or \$19.04 billion, and in the manufacturing sector, it was ¥2,389,000 million or \$14.4 billion, which when compared to the previous year shows a 52.4 percent increase for all industrial sectors and a 63.4 percent increase in the manufacturing sector. When we look at the ratio of investment in plant and equipment of Japanese affiliate corporations compared to Japanese domestic corporations, we find that it is 4.7 percent for all industries and 9.5 percent in the manufacturing sector pointing to brisk overseas activity in plant and equipment investments.

Table 31. Japanese Affiliate Investment in Plant and Equipment
(Unit: ¥1 million; percent)

	All industries	Percent increase over previous year	Manufacturing sector	Percent increase over previous year
North America	1,162,623	42.6	864,421	45.6
Central/S. America	93,799	-11.2	84,589	-11.4
Asia	813,681	64.9	695,170	66.8
Mideast	18,709	80.7	17,871	122.7
Europe	469,770	129.5	320,339	168.9
Oceania	113,010	5.3	58,237	59.8
Africa	23,464	-28.0	20,253	1035.9
All regions	2,695,056	52.4	2,038,860	63.4

When we view such fixed-capital investments in the manufacturing sector by region, we find that North America accounts for ¥864.4 billion or 42.4 percent. Following that, we have Asia which accounts for ¥695.2 billion or 34.1 percent, and then Europe which accounts for ¥320.3 billion or 15.7 percent. The increase in Europe is notable as it shows a 168.9 percent increase in terms of value when compared to the previous year and shows a 6.2 point increase as a whole.

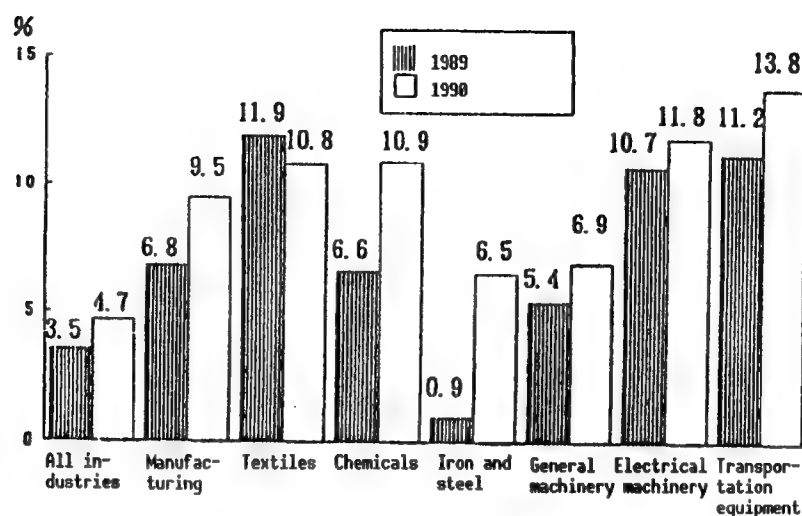


Figure 12. Japanese Affiliate Fixed-Capital Investment Compared With Domestic Fixed-Capital Investment (percent)

(6) Employment

As of March 1992, the number of people employed (includes directors) in Japanese affiliate corporations reached 1.55 million (manufacturing: 1.242 million), which was a new record over the previous best year. Of these, 36,000 (manufacturing: 18,000) were dispatched from Japan which when compared to the year before indicated a decline in the percentage of employees dispatched from Japan from 3 percent (manufacturing: 1.7 percent) to 2.3 percent (manufacturing: 1.4 percent).

Table 32. Local and Imported (From Japan) Employment in Japanese Affiliate Companies

(Unit: people, percent)

	All comparable industries		Dispatched from Japan		Manufacturing sector		Dispatched from Japan	
		Percent		Percent		Percent		Percent
North America	468,804	30.1	15,194	3.3	344,866	27.8	7,507	2.2
Central/S. America	115,070	7.4	1,791	1.6	101,715	8.2	910	0.9
Asia	878,010	43.8	10,027	1.5	594,371	47.9	6,591	1.1
Mideast	7,376	0.5	238	3.2	2,984	0.2	63	2.1
Europe	218,359	14.1	7,185	3.3	158,548	12.8	2,460	1.6
Oceania	51,038	3.3	1,051	2.1	30,473	2.5	271	0.9
Africa	15,012	1.0	258	1.7	9,044	0.7	49	0.5
All regions	1,549,869	100.0	35,744	2.3	1,242,001	100.0	17,851	1.4

When we view this regionally, we find that Asia accounts for 43.6 percent (676,000) of the total number of foreign affiliate employees, North America accounts for 30.1 percent (467,000), Europe accounts for 14.1 percent (218,000), and the Mideast accounts for 7.4 percent or 115,000 employees.

In terms of industrial sectors, the manufacturing sector covers more than 80 percent of the total number of employees and accounts for 80.1 percent or 1,242,000 employees, the commercial sector accounts for 11.5 percent or 179,000 employees, and the service sector accounts for 3.1 percent or 48,000 employees. Within the manufacturing sector, the electrical machinery industry has 419,000 employees and the transportation equipment industry has 230,000 employees.

(7) Community Relations and Contributions

With regard to community relations and contribution activities of Japanese affiliate corporations, we made a survey of corporate activities in terms of the items listed below. We found, according to these results, that the activity which most corporations are involved in is "contributing to groups" which accounted for 17.4 percent of the total. Next, it was "supporting various community events" (15.7 percent), and then came "education-related and research-related" contributions at 13.7 percent.

When we view this regionally, we find that the activities ratio is comparatively higher in North America, Central and South America, and Oceania. It is also relatively high in Asia and Europe according to the list, but in Africa and the Mideast, it remains at a fairly low level.

When we look at the ratio of corporations based on when it was established or the size of its capital, we find that 24.7 percent of the corporations which were established prior to 1978 said yes to "contributions to various groups," while 11.1 percent of those established after 1988 said yes. We found that 40.1 percent of those corporations in which capital exceeded ¥10 billion said yes, while only 9.5 percent of those capitalized at less than ¥1 million said yes, which points to the fact that the older the company and the higher its capitalization, increases its community relations and contribution activities ratio. This particular tendency remains unchanged.

Community Relations and Contribution Activities List

- (1) Contributions related to education (universities, grade schools, etc.), and research
- (2) Contributions related to medical services
- (3) Contributions to various groups (United Way, Red Cross, Chamber of Commerce and Industry, etc.)
- (4) Contributions to local municipalities
- (5) Contributions for establishing cultural and sports facilities, and related facilities
- (6) Contributions to PBS (public broadcasting stations)
- (7) Contributing to local disaster-relief efforts
- (8) Supporting regional economic development (building infrastructures, etc.)
- (9) Supporting scholarship programs, Adopt-A-School Program, and other educational activities
- (10) Organizing volunteer activities
- (11) Promoting nonprofit campaigns such as a traffic safety campaign
- (12) Supporting various community events
- (13) Opening facilities within own company (playgrounds, gyms, etc.), conducting factory sightseeing tours

Table 33. Community Relations and Contribution Activities (Unit: percent)

	①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬
North America	17.2	8.0	22.9	12.0	10.7	1.6	6.2	3.6	6.6	14.0	5.9	19.5	8.0
Central South America	14.8	6.9	19.0	9.1	11.3	1.4	7.5	6.7	3.8	5.4	4.2	14.2	12.0
Asia	11.7	4.1	16.7	9.7	6.4	0.6	11.0	4.0	4.5	6.6	4.1	14.9	9.9
Mideast	1.9	0.0	3.9	0.0	1.9	0.0	3.9	0.0	0.0	0.0	1.9	1.9	0.0
Europe	12.9	5.0	13.2	7.0	6.6	0.4	3.7	1.4	3.4	5.9	3.5	13.3	4.9
Oceania	14.1	6.5	13.0	7.0	8.9	0.7	6.5	4.4	4.1	6.8	5.4	15.7	7.5
Africa	4.2	6.7	3.3	2.5	3.3	0.0	4.2	5.0	3.3	0.8	0.0	5.0	3.3
All areas	13.7	5.7	17.4	9.5	8.1	0.9	7.5	3.5	4.7	8.4	4.5	15.7	8.2

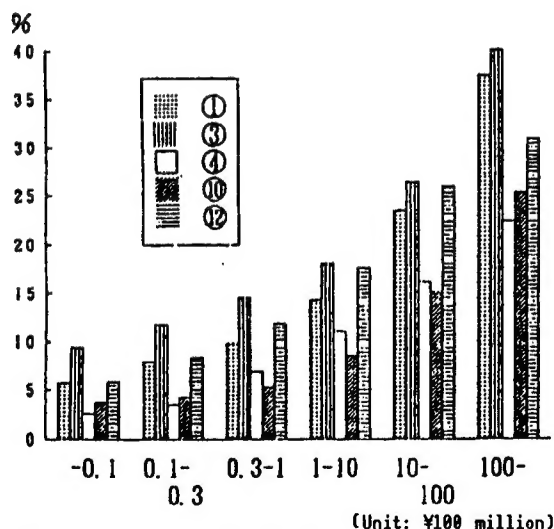


Figure 13. Community Relations and Contributions Activities Ratio by Size of Capital

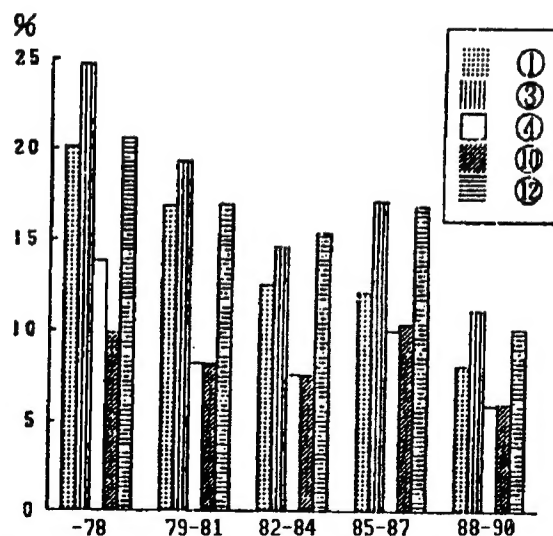


Figure 14. Community Relations and Contributions Activities Ratio by Market Entry Periods

(8) Environmental Issues

We heard back from 2,483 Japanese manufacturing affiliates regarding responses that they had received concerning environmental issues since entering the market. Among those who responded, approximately 90 percent of 2,222 companies stated that environmental issues had presented "no special problems." Some of the other responses received from Japanese affiliates included 60.5 percent who said that "guidance provided by official agencies," 14.9 percent who said that "there had been complaints from local residents," 3.4 percent who said that "lawsuits had been brought against them," and 3.1 percent who responded that "they had gotten advice from within their industry trade group." When we take a look at this by region, we find that 70.3 percent of the respondents in North America said that they had received "guidance from official agencies," 6.8 percent mentioned "lawsuits," while in Asia, 16.7 percent mentioned "local residents," which when compared to other regions was quite high.

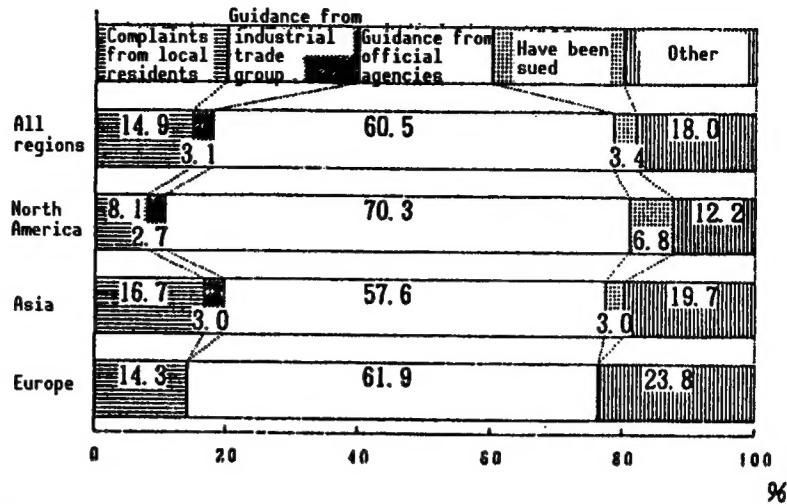


Figure 15. Distribution of Environmental Issues

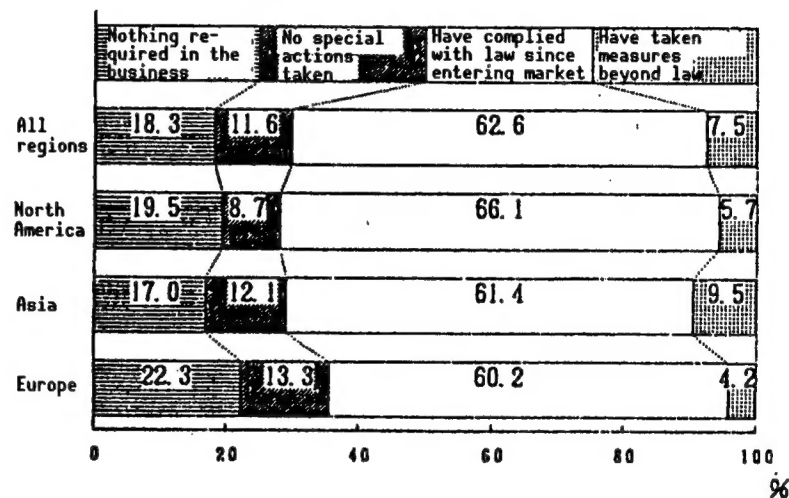


Figure 16. Distribution of Remedies Taken Regarding Environmental Issues

With regard to environmental-type measures taken by the manufacturing sector, 62.6 percent of the companies said that they "had complied with the law since entering the market," 7.5 percent of the companies said that they "had taken measures which went beyond the law since entering the market," 11.6 percent was that they "had done nothing special," and 18.3 percent said that "there was nothing special that they were required to do within the business."

- END -

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